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(19) (CA) **CANADIAN PATENT** (12)

(54) Particles and Procedures for the Determination of
Antigens and/or Antibodies Using the Particles

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- Abstract -

The invention concerns particles and a procedure for the simultaneous determination of several antigens or antibodies in a liquid using these particles. The mixture of particles contains populations of particles, which differ from each other in the following way:

Each population exhibits a specific combination of the following characteristics: 1) fluorescent substances with differing emission spectra, 2) quantity of these fluorescent substances, 3) particle size. Each particle population is loaded furthermore with a different type of antibody or antigen. Using this mixture of particles, the simultaneous investigation of several types of antigen or antibody can be carried out a time and effort saving manner. The particle mixture is mixed with the liquid containing the antibodies or antigens to be determined. The subsequent reaction steps correspond to the steps of a conventional immunofluorescence procedure. Finally, each particle is measured using a measuring device (e.g. flow cytometer) for its fluorescence (emission spectrum and intensity) and size. On the basis of the measured data, a computer identifies the particle and correlates the measured immunofluorescence with a defined specificity.